

Applicants believed that this response is timely and no extension of time is required. If Applicants were to be mistaken, Applicants hereby petition appropriate extension of time and the Commissioner is authorized to charge Lyon & Lyon Deposit No. 12-2475, for the necessary extension of time fees and for any other fees necessitated by this filing.

II. AMENDMENT (CLEAN VERSION)

IN THE CLAIMS:

Please cancel claims 17-44 without prejudice.

Please amend the following claims as follows:

1. (Amended) A plasmid for expression of recombinant eucaryotic genes comprising:
a first transcription unit comprising a first transcriptional control sequence transcriptionally linked with a first 5' -untranslated region comprising a first synthetic intron, a first coding sequence, and a first 3' -untranslated region/poly (A) signal, wherein said first synthetic intron is between said control sequence and said first coding sequence; and
a second transcription unit comprising a second transcriptional control sequence transcriptionally linked with a second 5' -untranslated region comprising a second synthetic intron, a second coding sequence, and a second 3' -untranslated region/poly (A) signal, wherein said second synthetic intron is between said control sequence and said second coding sequence.

2. (Amended) The plasmid of claim 1, wherein the first and second 5' untranslated regions are deficient in G, but rich in C and A residues.

3. (Amended) The plasmid of claim 2, wherein the first and second 5' untranslated regions are about 54 nucleotides long exclusive of the first and second synthetic introns.

4. (Amended) The plasmid of claim 2, wherein the first and second 5' untranslated regions are lacking in AT-rich sequences. *B*

A1 Sub B2 5. (Amended) The plasmid of claim 1, wherein the first and second synthetic introns both comprise 5' splice sites having a sequence CAGGTAAGT. *B*

CON't. 6. (Amended) The plasmid of claim 1, wherein the first and second synthetic introns both comprise branch points having a sequence TACTAAC.

7. (Amended) The plasmid of claim 1, wherein the first and second synthetic introns both comprise 3' splice sites having a sequence TTCTTTTTCTCTCACAGG.

Sub B3 10. (Amended) The plasmid of claim 8, wherein the intron comprises a 5' splice site having a sequence CAGGTAAGT.

11. (Amended) The plasmid of claim 8, wherein the intron comprises a branch point having a sequence TACTAAC.

12. (Amended) The plasmid of claim 8, wherein the intron comprises a 3' splice site having a sequence TTCTTTTTCTCTCACAGG. *B*

13. (Amended) A plasmid for expression of recombinant eucaryotic genes comprising: a transcriptional control sequence transcriptionally linked with a first coding sequence, an IRES sequence, a second coding sequence, and a 3' -untranslated region/poly(A) signal, wherein said IRES sequence is between said first coding sequence and said second coding sequence; and

a synthetic intron between said transcriptional control sequence and said first coding sequence.

A2 8/21 14. (Amended) The plasmid of claim 13, wherein the synthetic intron comprises a 5' splice site having a sequence CAGGTAAAGT.

CON 1. 15. (Amended) The plasmid of claim 13, wherein the synthetic intron comprises a branch point having a sequence TACTAAC.

16. (Amended) The plasmid of claim 13, wherein the synthetic intron comprises a 3' splice site having a sequence TTCTTTTTCTCTTCACAGG.

Please add the following new claims:

A3 45. (NEW) The plasmid of claim 1, wherein the synthetic intron is about 118 nucleotides long.

46. (NEW) The plasmid of claim 8 wherein the first and second synthetic introns are about 118 nucleotides long.

47. (NEW) The plasmid of claim 13, wherein the intron is about 118 nucleotides long.

48. (NEW) The plasmid of claim 1 wherein the first and second synthetic introns are OPTIVS8B.

49. (NEW) The plasmid of claim 13 wherein the synthetic intron is OPTIVS8B.